12-11-03

Process Mail Label No.: EV 312715467 US

Attorney Docket No.: 21508-065

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:

Guy L. Reed

SERIAL

10/715,981

**EXAMINER:** 

Not Yet Assigned

NUMBER:

FILING DATE:

November 18, 2003

ART UNIT:

Not Yet Assigned

FOR:

COMPOSITIONS AND METHODS FOR TREATING THROMBOTIC

**DISORDERS** 

## Mail Stop IDS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

### TRANSMITTAL LETTER

Transmitted herewith for filing in the present application are the following documents:

- 1. Information Disclosure Statement (2 pages), in duplicate;
- 2. Modified Form 1449/PTO (2 pages), in duplicate;
- 3. Copies of Cited Reference C1-22; and
- 4. Return Postcard.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 542-6000, Boston, Massachusetts.

The Commissioner is authorized to charge any fees that may be due, or to credit any overpayment, to the undersigned's account, Deposit Account No. 50-0311 Ref. No. 21508-065. A duplicate copy of this transmittal letter is enclosed herewith.

Respectfully submitted,

Ingrid A. Beattie (Registration No. 42,306)

Attorneys for Applicants

c/o MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C.

One Financial Center

Boston, Massachusetts 02111

Tel: (617) 542-6000 Fax: (617) 542-2241

Dated: December 9, 2003

Post of Deposit: December 9, 2003

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#### INFORMATION DISCLOSURE STATEMENT

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicant hereby makes of record the documents listed on the attached modified Form PTO-1449.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits in the above-identified application. Accordingly, no fee or certification is believed due at this time.

It is respectfully requested that the Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims, and sign the enclosed form PTO-1449 to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that: (1) a search has been performed, of the extent of any search performed, or that more relevant information does not exist; (2) the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b); and (3) the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

APPLICANTS: Guy L. Reed U.S.S.N.: 10/715,981

Notwithstanding any statements by the Applicant, the Examiner is urged to form his/her own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

Please charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 21508-065.

Respectfully submitted,

Ingrid A. Beattie (Registration No. 42,306)

Attorneys for Applicants

c/o MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C.

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Dated: December 9, 2003

TRA 1859340v1

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Modified Form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

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Application Number	10/715,981
Filing Date	November 18, 2003
First Named Inventor	Reed
Group Art Unit	Not yet assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	21508-065

U.S. PATENT DOCUMENTS							
Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
	<u> </u>	<u> </u>		L		1	.1

FOREIGN PATENT DOCUMENTS					
Exam Initials	Cite No.	Foreign Patent Document Office Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No

,		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C1	Cederholm-Williams, et al., "Kinetics of the Reactions between Streptokinase, Plasmin and $\alpha_2$ -Antiplasmin", Eur. J. Biochem., 100(1):125-132 (1979).
	C2	Collen, Désiré, "Staphylokinase: a Potent, Uniquely Fibrin-Selective Thrombolytic Agent", Nature, 4(3):279-284 (1998).
	СЗ	Green, et al., "Thiobenzyl Benzyloxycarbonyl-L-Lysinate, Substrate for a Sensitive Colorimetric Assay for Trypsin-Like Enzymes", <i>Analytical Biochem.</i> , 93(1):223-226 (1979).
	C4	Huntington, et al., "Structure of a Serpin-Protease Complex Shows Inhibition by Deformation", Nature, 407:923-926 (2000).
	C5	Keyt, et al., "A Faster-Acting and More Potent Form of Tissue Plasminogen Activator", <i>Proc. Natl. Acad. Sci. USA</i> , 91:3670-3674 (1994).
	C6	Kraulis, Per J., "MOLSCRIPT: A Program to Produce both detailed and Schematic Plots of Protein Structures", J. Appl. Crystallogr., 24:946-950 (1991).
	C7	Madison, et al., "Serpin-Resistant Mutants of Human Tissue-Type Plasminogen Activator", Nature, 339:721-724 (1989).
	C8	Merritt, et al., "Raster3D Version 2.0. A Program for Photorealistic Molecular Graphics", <i>Acta Cryst.</i> , D50:869-873 (1994).
	C9	Moroi, et al, "Isolation and Characterization of α <sub>2</sub> -Plasmin Inhibitor from Human Plasma", <i>J. Biol.Chem.</i> , 251(19):5956-5965 (1976).
	C10	Parry, et al., "The Temary Microplasmin-Staphylokinase-Microplasmin Complex is a Proteinase-Cofactor-Substrate Complex in Action", Nat. Struct. Biol., 5(10):917-923 (1998).
	C11	Parry, et al., "Molecular Mechanisms of Plasminogen Activation: Bacterial Cofactors Provide Clues", <i>Trends Biochem. Sci.</i> , 25:53-59 (2000).
	C12	Peisach, et al., "Crystal Structure of the Proenzyme Domain of Plasminogen", <i>Biochemistry</i> , 38(34):11180-11188 (1999).
	C13	Reed, et al., "Synergistic Fibrinolysis: Combined Effects of Plasminogen Activators and an Antibody that Inhibits α <sub>2</sub> -Antiplasmin", <i>Proc. Natl. Acad. Sci. USA</i> , 87:1114-1118 (1990).
	C14	Reed, et al., "Identification of a Plasminogen Binding Region in Streptokinase that is Necessary for the Creation of a Functional Streptokinase-Plasminogen Activator Complex", <i>Biochemistry</i> , 34(32:10266-10271 (1995).
	C15	Sazonova, et al., "The Mechanism of a Bacterial Plasminogen Activator Intermediate between Streptokinase and Staphylokinase", J. Biol. Chem., 276(16):12609-12613 (2001).

Page 2 of 1

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3		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
divam mitials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C16	Turner, et al., "Structural Elements that Govern the Substrate Specificity of the Clot-Dissolving Enzyme Plasmin", J. Biol. Chem., 277(36):33068-33074 (2002).
	C17	Wang, et al., "Structure and Function of Microplasminogen: II. Determinants of Activation by Urokinase and by the Bacterial Activator Streptokinase", <i>Protein Science</i> , 4:1768-1779 (1995).
	C18	Wang, et al., "Crystal Structure of Catalytic Domain of Human Plasmin Complexed with Streptokinase", Science, 281:1662-1665 (1998).
	C19	Wiman, et al., "The Specific Interaction between Plasminogen and Fibrin. A Physiological Role of the Lysine Binding Site in Plasminogen", <i>Thrombosis Res.</i> , 10(2):213-222 (1977).
	C20	Wiman, et al., "On the Kinetics of the Reaction between Human Antiplasmin and a Low-Molecular-Weight Form of Plasmin", Eur. J. Biochem., 87(1):143-146 (1978).
	C21	Wiman, et al., "On the Specific Interaction between the Lysine-Binding Sites in Plasmin and Complementary Sites in α <sub>2</sub> -Antiplasmin and in Fibrinogen", <i>Biochim. Biophys. Acta</i> , 579(1):142-154 (1979).
	C22	Wohl, et al., "Kinetics of Activation of Human Plasminogen by Different Activator Species at pH 7.4 and 37°C", J. Biol. Chem., 255(5):2005-2013 (1980).

a copy of this reference is not pro	vided as it was previously cited by or submitted to the office in a prior application, Serial No.
, filed	_, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-
part, and divisional applications).	

Examiner Signature		Date Considered			
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.